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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,812	08/22/2001	William J. Purpura	7784-000326	8834

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EXAMINER

LEE, HWA C

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 03/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/934,812	PURPURA, WILLIAM J.	
	Examiner	Art Unit	
	Hwa C Lee	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This office action is in response to the application no. 09/934,812 filed on August 22, 2001, wherein William J. Purpura is the inventor.
2. The application is entitled: "METHOD AND APPARATUS FOR PROVIDING VISUAL SECURITY FOR COMPUTER DISPLAY".
3. Claims 1-20 are pending in the application, wherein claims 1, 16 and 20 are independent claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 1 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al., U.S. Patent Application Publication No., 2001/0026248 in view of Dunn et al., U.S. Patent No., 6,529,209.

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7. In regards to claim 1, Goren et al. discloses a ***method for providing security for computer displays comprising:***

- (Paragraph [0006], lines 1-9; Paragraph [0008], lines 1-9; and FIG. 1)

operating a computer to electronically superimpose an obscuring colored mosaic on user data displayed in a window of an electronic color display

- (Paragraph [0006], lines 9-13; Paragraph [0008], lines 9-15; Paragraph [0024], lines 1-13; and FIGS. 4-7);

and providing glasses operable to filter the superimposed, obscuring colored mosaic displayed in the window of the electronic color display.

- (Paragraph [0025] and FIG. 9).

8. In regards to claim 1, Goren et al. does not disclose the limitations of ***operating the computer to perform at least one of saving the user data without the obscuring colored mosaic, faxing the user data without the obscuring colored mosaic, and printing the user data without the obscuring colored mosaic***, but Dunn et al. discloses the said limitations.

- Standard video output, which specifically is ***user data without the obscuring color mosaic***, stored in a first video memory specifically is saving the standard video output (Col. 9, lines 61-65 and FIGS 5A-%c, Step 102). If the security of the data is of a concern, the user is then given the option of encoding the video output. A fill pattern is loaded in a second video memory, wherein the data is hidden by the fill pattern, and the data can only be seen with the active glasses synchronized in

accordance with the inventive arrangements (Col. 10, lines 12-22 and FIG 5B step 110).

9. It would have been obvious to one of ordinary skill in the art to take the teachings of Goren et al. and to add from Dunn et al. the method of saving the user data without the obscuring color mosaic in order to preserve the integrity of the original data. Thus, only when viewing the data, the obscuring color mosaic is present in order to provide secure display of the data. The original data itself remain undistorted and unchanged. In addition, all references are directed to obscuring the user data from unauthorized viewers on a display.

10. In regards to claim 20, the same basis and rationale for claim rejection as applied to claim 1 are applied. Dunn et al. discloses the limitation of the masking data, which specifically is an obscuring colored mosaic. The masking data can be a fill pattern, which specifically can be a random data, a screen saver image, modified derivation of the user data having modified color or data whose content, positions or size is physically offset. A random data specifically can be any data, and thus can be of different color than the user data. A screen saver image specifically has no color restriction, and thus it can also be of different color than the user data. Further, a modified derivation of the user data having modified color specifically is having different color than the user data.

11. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al in view of Dunn et al., as applied to claims 1 and 20 above, and further in view of Tian, U.S. Patent Application Publication No., 2002/0146123.

12. In regards to claim 2, Goren et al. and Dunn et al. do not disclose the limitation of ***applying a watermark to the user data displayed in the window***, but Tian discloses the said limitation. Applying a reversible watermark in a media signal. The embedded watermark is reversible by decoding the information about the watermark embedder function and thus original data is restored (Paragraph [0010]).

13. It would have been obvious to one of ordinary skill in the art to take the teachings of Goren et al. and Dunn et al. and to add from Tian the method of applying watermark to the user data in order to embed security authentication or any other data into the original data for the purpose of providing added data security. Both visible and invisible watermarks are known in the art, and embedding such watermark provides a method of tracking the authenticity of the original data in order to prevent piracy and/or unauthorized viewing of the document. In addition, all references are directed to obscuring the user data from unauthorized viewers on a display.

14. In regards to claim 3, Goren et al. discloses the following limitation.

A method in accordance with claim 2 wherein said operating the computer to superimpose an obscuring mosaic on the user data comprises operating the computer to display the superimposing mosaic before visibly displaying the user data.

- FIG. 4 clearly shows the user selecting the obscuring pattern and color before calling the computer application for displaying the original user data (Paragraph [0024], lines 1-9). In order for the security feature to obscure

the user data and prevent public viewing of said user data, the obscuring pattern must be displayed before displaying the user data.

15. Claims 4, 6, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. in view of Dunn et al., as applied to claims 1 and 20 above, and further in view of Tian, as applied to claims 2-3 above, and further in view of Livingston, U.S. Patent No., 6,621,590.

16. In regards to claim 4, Goren et al. and Dunn et al. in combination disclose the limitations of ***operating the computer to perform at least one of saving the user data without the obscuring colored mosaic, faxing the user data without the obscuring colored mosaic, and printing the user data without the obscuring colored mosaic***, as applied to claim 1 above, but neither explicitly disclose the limitation of ***applying watermark***. Tian discloses the limitation of applying reversible watermark, as applied to claim 2 above, and the reversible watermark specifically is ***operating the computer to remove the applied watermark from the user data***. Goren et al., Dunn et al. and Tian et al. do not disclose the limitation of ***operating the computer to remove the applied watermark from the user data prior to at least one of printing, faxing, and saving the user data***.

17. Livingston discloses the said limitation.

- The controls for "Watermarks" feature include a control (FIG. 3A, No. 82) for selecting the option "Print Watermarks". By un-checking or not selecting on the box next to "Print Watermarks", the watermark is removed from user data before printing the user data.

18. It would have been obvious to one of ordinary skill in the art to take the teachings of Goren et al. and Dunn et al. and to add from Tian the method of reversible watermark in order to allow the user data to be saved without the obscuring color mosaic and watermark, and thus the original, unaltered user data can be preserved. In addition, it would also have been obvious to one of ordinary skill in the art to add from Livingston the watermarks control in order to allow the user to remove the watermark before printing the user data. Further, all references are directed to obscuring the user data from unauthorized viewers on a display.

19. In regards to claim 6, the same basis and rationale for claim rejection as applied to claim 4 are applied. By selecting or checking on the box next to "Print Watermarks" control, the watermark is added to the user data before printing the user data. When the "Print Watermark" is selected, the pull down menu (FIG. 3A, No. 84) and user editable textbox (FIG. 3A, No. 88) are used to select or create the desired watermark. Once, the watermark is created or selected, de-selecting or un-checking the "Print Watermark" control removes the watermark. Reselecting or rechecking the "Print Watermark" control reapplies the said original saved watermark.

20. In regards to claim 16, the same basis and rationale for claim rejection as applied to claims 1-4 are applied. In addition, Goren et al. discloses the limitations of storing a set of instructions for providing display security (Paragraph [0012]), and Dunn et al. explicitly discloses a plurality of computer computer-readable medium (Col. 9, lines 63-65 and Col. 10, lines 12-15). It would have been obvious to one of ordinary skill in the art to apply the instructions stored in a computer-readable medium as disclosed by

Goren et al. and Dunn et al. to execute all functions of claims 1-4 above and the current claim.

21. In regards to claim 17, the same basis and rationale for claim rejection as applied to claim 16 are applied.

22. In regards to claim 18, the same basis and rationale for claim rejection as applied to claims 6 and 16 are applied. The said executable instructions of claim 16 can be applied to perform the reapplying of the watermark as applied to claim 6 above.

23. In regards to claim 19, the same basis and rationale for claim rejection as applied to claims 4 and 16 are applied. Goren et al. clearly discloses the limitation of allowing the user to select the colorized matrix as applied to claim 4 above. Thus the executable instruction in the form of a computer program ***accepts a choice of color for the superimposed obscuring colored watermark.***

24. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. in view of Dunn et al., as applied to claims 1 and 20 above, and further in view of Tian, as applied to claims 2-3 above, and further in view of Livingston as applied to claims 4, 6, and 16-19 above, and further in view of Parikh et al., U.S. Patent No., 5,801,697.

25. In regards to claim 5, Goren et al., Dunn et al., Tian, and Livingston disclose all limitations of ***a method in accordance with claim 4***, but do not disclose the limitation of ***further comprising operating the computer to blank the window prior to removing the applied watermark.*** Parikh et al. discloses the said limitation.

- A method and apparatus of providing secure viewing of user data by obscuring the data with completely whited out area, which specifically is a completely blank viewing area (Col. 1, lines 59-63; Col. 2, lines 42-53). The completely blank obscuring effect when combined with the reversible watermark of claims 2 and 4, allows for a method of blanking out the display window prior to removing the applied watermark. The reversible watermark must be removed after the window is blanked in order to maintain the visual security of the user data.

26. It would have been obvious to one of ordinary skill in the art to take the teachings of Goren et al., Dunn et al., Tian, and Livingston, and to add from Parikh the method of blanking out the display window in order to completely obscure the user data before removing any of the security features, such as the reversible watermark. Thus, maintaining the visual security of the user data. In addition, all references are directed to obscuring the user data from unauthorized viewers on a display.

27. Claims 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al in view of Dunn et al., as applied to claims 1 and 20 above, and further in view of Long et al., U.S. Patent Application Publication No., 2003/0039195.

28. In regards to claim 7, Goren et al. and Dunn et al. in combination discloses a system of providing a security for computer display as applied to claim 1 above. In addition, both Goren et al (FIG. 3) and Dunn et al. (FIGS. 6A-6B) disclose the limitation of the ***user data comprising of text***. Also, Goren et al. discloses the limitation of user selectable obscuring color mosaic comprising of colorized matrix patterns as applied to

claim 4 above. Colorized matrix pattern specifically is ***an array of pattern of alternating colors***. However, neither Goren et al. nor Dunn et al. explicitly discloses the limitation of the colored mosaic comprising of ***an array of diamonds of alternating colors***. Long et al. discloses the limitation of applying an obscuring covert image in hiding the user data, wherein the covert image comprises of diamonds (Paragraph [0031]). In addition, FIGS. 3a, 4a, and 8, clearly shows patterns of diamond and square in alternating colors.

29. It would have been obvious to one of ordinary skill in the art to take the teachings of Goren et al. and Dunn et al., and to add from Long et al. the method of applying the obscuring color mosaic comprising an array of diamonds of alternating colors. Goren et al. and Dunn et al. disclose applying an obscuring mosaic comprising a plurality of patterns and matrix of colorized patterns, and an array of diamonds of alternating color as disclosed by Long et al. specifically is a matrix of colorized patterns. In addition, the array of diamonds of alternating colors is designed to confuse the viewer's eyes, and thus effectively prevent unauthorized viewing of user data. In addition, all references are directed to obscuring the user data from unauthorized viewers on a display.

30. In regards to claim 8, the same basis and rationale for claim rejection as applied to claim 7 are applied. ***The area of each of the diamond*** as disclosed by Long et al. ***is sufficient to confuse the eye when the color mosaic is superimposed upon the text.***

31. In regards to claim 9, the same basis and rationale for claim rejection as applied to claim 8 are applied. Red and white diamonds are specifically colorized matrix of

patterns as disclosed by Goren et al. In addition, Goren et al. discloses changing the default color of the font to improve font readability. Further, the applicant does not disclose the criticality of using said colors, and thus Goren et al. reads on the limitations of the said colors.

32. In regards to claims 10-13, the same basis and rationale for claim rejection as applied to claims 7-9 are applied. The applicant fails to disclose the criticality of the said diamond sizes of 20-40%, 23-27%, 25%, and 75%. Said diamond sizes can be different depending on the application, and the criticality of specific sizes must be disclosed in order to demonstrate a distinctly patentable matter. Thus, any diamond shape size that performs the function of sufficiently obscuring the user data specifically reads on said limitations of diamond sizes. As applied to claim 8 above, Long et al. discloses an obscuring pattern comprising of diamond shapes, which are of sufficient size to confuse the naked eye.

33. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al., in view of Dunn et al., as applied to claims 1 and 20 above, and further in view of Bernheiser, U.S. Patent No., 5,587,747.

34. In regards to claim 14, Goren et al. discloses the limitations of **a method in accordance with claim 1 further comprising providing a choice of colors for the obscuring colored mosaic, and providing a plurality of sets of colored glasses corresponding to the color choices** (Paragraph [0025] and FIG. 9). Optical filter (a pair of optical glasses) is selected to match the color of the pattern of the obscuring colorized matrix. In order to match the color of the colorized matrix, the color of the lens

of the optical glasses must be changed to match the color of the colorized matrix.

Goren et al. and Dunn et al. do not explicitly disclose the limitation of a plurality of colored glasses, but Bernheiser discloses the said limitation.

- A lens replacement system comprising a single frame set with interchangeable multiple lens of different shapes and color (Col. 2, lines 59) specifically is a plurality of sets of colored glasses.

35. It would have been obvious to one of ordinary skill in the art to take the teachings of Goren et al. and Dunn et al., and to add from Bernheiser the method of providing interchangeable lens system, wherein multiple sets of colored lens can be interchanged and thus provides a plurality of sets of colored glasses. Then, the plurality of color glasses is applied to select the color of the plurality of lens to correspond to the color choices for the obscuring colored mosaic. By using an interchangeable lens system, only a single frame is required to perform the same function of a plurality of sets of glass frames, and thus saving storage space.

36. In regards to claim 15, the same basis and rationale for claim rejection as applied to claim 14 are applied.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hwa C Lee whose telephone number is 703-305-8987. The examiner can normally be reached on M-F 8:30-5:00.

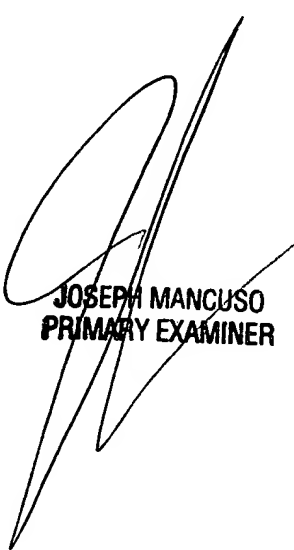
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 703-305-3885. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hwa C Lee
Examiner
Art Unit 2672

HCL



JOSEPH MANCUSO
PRIMARY EXAMINER